The Seattle Times

Puget Sound: One man's indictment, love poem and call to arms

By William Dietrich

As a journalist, I've occasionally been drawn to long stories about complex problems. Once, when I'd consumed yet another forest of newsprint with exhaustive analysis, my colleague Steve Johnston commented, "That's quite a thumbsucker you wrote there, Bill."

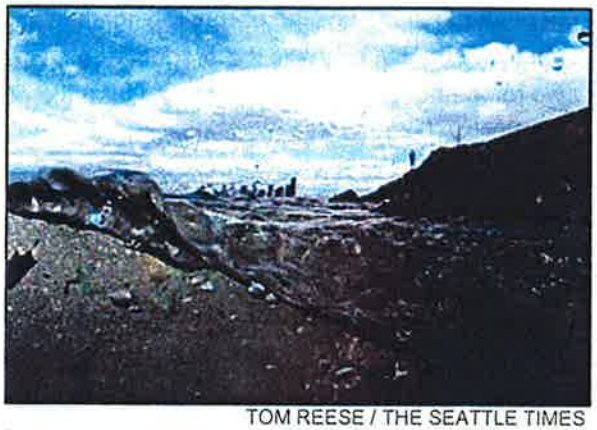
"What's a thumbsucker?" I asked.

"It's an article so long and complicated, about a problem so convoluted and intractable, that by the time you've finished reading it, the only sensible reaction a subscriber can have is to suck his thumb."

Point well taken. So I'm going to do my best to keep you from closing your eyes, curling into a fetal position and sucking your thumb. But Puget Sound â€" not just the body of water itself but the basin, and the ideas it represents â€" is a subject so large and difficult that it is an act of will to confront it. This is not an easy topic to tackle.

Like a subconscious id, Puget Sound is a repository not only of all the runoff of pollutants and problems from the crest of the Olympics to the Cascades, but of the hopes and fears of Pacific Northwest civilization. It reflects, unmercifully, who we truly are: stewards or wastrels, deep thinkers or merely deep-sixers.

Puget Sound is in danger of becoming a liquid desert, its sun-lit surface hiding the fact that what's underneath is increasingly dominated by ratfish, a bottom-feeding species one biologist estimated now makes up three-fifths of the fish biomass of our waterway.



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Downtown Seattle's skyline, viewed from Alki Beach, signals the pressures population growth is placing on the health of Puget Sound.

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Downtown Seattle seen from Alki Beach, near where Europeans first settled. Native American and early white-settler societies both felt a direct economic connection to the Sound's health. Today's balance sheets generally don't recognize the costs of damaging the environment to create more human wealth.

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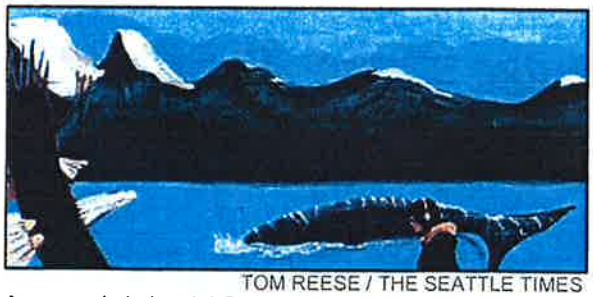
First, let me make clear that I love Puget Sound. I grew up on it, in Tacoma, fished it with my Dad and grandfather, and today live next to its Salish Sea extremity on Fidalgo Island.

I remember a Puget Sound where the massed gillnetters put out a glorious fairyland of running lights, where a bucket of butter clams was the product of a casual walk. I also remember a Puget Sound ranker than the one we know today. I played with my cousins on a Port Orchard beach that stank of raw sewage, boated on bays brown from effluent, and joined fishermen sinking beer cans over the side without a second thought.

We are confronted today with a waterway marked by encouraging progress in some areas and catastrophic decline in others. We are at a balancing point, where Puget Sound could dip toward disaster or rise toward recovery, depending on the decisions we make. So what I want to do is give you cause for worry and for hope, then suggest ways we might go.

Let's start with the bad news. Be afraid. Very afraid.

A chinook salmon leaps in Issaquah Creek, trying to enter a fish ladder to its hatchery birthplace. Hatchery runs obscure the hard reality of a 92 percent decline of wild salmon in Puget Sound since record-keeping began. Seven stocks have gone extinct just since 1992. Also collapsed or collapsing: Pacific cod, Walleye pollock, whiting, rockfish, butter clams, English sole, herring, pinto abalone.



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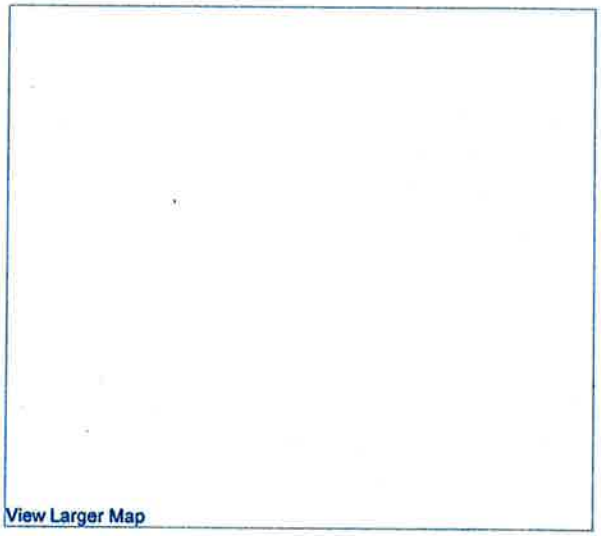
A woman in industrial Georgetown seems lost in her headphones while walking past a mural depicting the natural beauty of Puget Sound. To restore the real Sound will require more compact cities of denser housing and improved public transportation.



PUGET SOUND SHOULD BE an ecological showcase. It is in a temperate climate zone of incredible biological productivity. Counting the Northwest Straits region of the San Juan Islands, it has 2,500 miles of shoreline, or enough to reach across the United States, and is the deepest estuary of its kind in the Lower 48. Carved by Ice Age glaciers, the Sound averages 450 feet deep and is fed by 14 major rivers and 10,000 small rivulets. The Sound has 2,800 square miles of water but is one arm of an inland sea in which three quarters of the tidal water pouring through the Strait of Juan de Fuca goes north into Canada. To the pioneers, the system must have seemed inexhaustible.

The Sound still plays host to a $3 billion fishery, gets 2,500 cargo-ship visits a year and has 30,000 moorage slips for boats. It's a highway and a playground.

But the Sound's very depth creates a problem because the most productive water is that which is shallow enough for sunlight to penetrate. Much of the Sound is too deep for the eel-grass nurseries young marine life depends on. At the same time, shallow underwater sills at Admiralty Inlet, the entrance to Hood Canal and Tacoma Narrows tend to confine the deeper water, trapping pollutants and inhibiting mixing. Hood Canal is an extreme, where poor mixing and rising nutrients have created oxygen-starved bottoms and huge floating mats of algae, choking off other marine life.

We have used Puget Sound as a dumping ground for 150 years, and the bill has come due. Up to 70 percent of all the original estuaries and wetlands are gone, filled, paved and farmed. A third of the original eel-grass

beds are gone. About 8,700 acres of the bottom are highly contaminated and tens of thousands more are moderately contaminated, the state says. Of 165,000 acres of shellfish harvest area, 28,000 are closed because of pollution.

We deposit a billion gallons of treated wastewater, and hundreds of thousands of pounds of chemical waste, into the Sound each year. We extract 250 billion gallons of fresh water for our own use that otherwise would flow directly through streams and aquifers to renew the Sound.

The result is shocking. While hatcheries have sustained enough of a fishery to allow us to deny reality (about 85 percent of the fish caught in the Sound now are by sportsmen since commercial numbers have collapsed), the hard truth is that wild salmon populations are only at about 8 percent of their historical number. And seabirds? Down by 47 percent in just the last 20 years.

What in the name of Peter Puget is going on?

People, of course.

THE POPULATION OF the Puget Sound basin has doubled since 1960 to 4 million, and we're projected to grow to about 5.5 million by 2025. Never before has nature been asked to absorb this many people, this quickly. An example: Between 1991 and 2001, 190 square miles of Puget Sound basin forest were converted to housing and stores.

We also know what flows downhill. Puget Sound is our chemical toilet, and we hope it all sinks out of sight. Except it doesn't. Collapsing species tell us what's going on. Puget Sound chinook salmon have five to 17 times the PCB concentration of other West Coast chinook, the state says. Harbor-seal pups have seven times more PCBs here than those in Georgia Strait.

Puget Sound is just plain too dirty. In the summer of 2005, the state reports, 24 of 65 monitored beaches violated water-quality standards for bacteria at least once. We pollute, we destroy critical habitat, and we're even changing the climate. Air temperatures in the basin are up nearly 2 degrees Fahrenheit on average the last 100 years, twice the global rate. Water temperatures at Race Rocks, near Victoria, are also up nearly 2 degrees on average, just since 1950.

Be afraid.

But we're on top of the problem, right?

In 1984 The Seattle Times did a hard-hitting series on Puget Sound's decline. The Legislature reacted by creating a Puget Sound Water Quality Authority, an aggressive agency that produced an ambitious plan for reform by the end of 1986. But the plan meant getting tough with both industrial polluters and the rest of us with our million-odd septic tanks, road runoff, fertilizer and so on. It named names. So the director, Kathy Fletcher, was bounced out. She went on to direct People for Puget Sound and remarked recently that working on Puget Sound is like the movie "Groundhog Day," where you repeat the same day over and over. The Authority was replaced with the softer-sounding Puget Sound Action Team, with lots of advice and little muscle. Fast-forward two decades. Same mess, except species decline is accelerating.

How much have we spent on Puget Sound? That seems a reasonable question, but I couldn't find the number. What have we accomplished? I couldn't find a comprehensive list. What are we *trying* to accomplish? Here we have a credible list â€" pollution and storm-water control, habitat acquisition, and so on

â€" that came from the new Puget Sound Partnership, with a tentative price tag of $18 billion to $27 billion to finish the job by 2020.

And what is the Puget Sound Partnership? The Legislature last year replaced the "Action Team" with the even-nicer-sounding Partnership, following Gov. Chris Gregoire's 2005 Puget Sound Initiative. The new agency will come up with a more detailed plan of what we're trying to accomplish, but it has no real regulatory or taxing authority, and is apparently supposed to encourage local and state government to do right by the Sound, once they decide what right is.

That means coordinating the 12 counties, 115 cities, 15 tribes, at least 26 agencies and scores of citizen groups that work on Puget Sound.

But if history is any guide, the politically palatable idea of protecting Puget Sound without spending too much money and ruffling too many feathers will prove extremely difficult to impossible. On Chesapeake Bay, progress is similarly limited after 19 years, and the estimated cost of fixing that estuary now is $28 billion, or even more than Puget Sound.

The test will be if the Partnership can come up with specific goals against which progress can be measured. Is there good news?

THERE'S A LOT, ACTUALLY.

For one thing, we *do* have the new agency, with a state budget for the next two years averaging $176 million a year. Not enough, but not inconsequential either.

And Puget Sound is arguably getting cleaner. If some new chemicals in fish flesh are rising, others are dropping, and industrial pollution is dramatically reduced from the 1950s. Programs are underway to clean up derelict fishing nets, remove creosote logs, inventory species, restore streams, improve estuarine habitat and rebuild salmon runs. In some cases we are running in place: We remove derelict vessels at just about the rate new ones sink. But places like Bainbridge Island's Eagle Harbor or Tacoma's Commencement Bay have begun to dramatically improve. According to the governor's office, since 2000 some 2,500 barriers to fish passage have been removed in this state (many in eastern Washington, mind you) and 2,500 new stream miles opened.

Some shellfish areas have reopened after contamination was controlled. At least on paper, counties have programs to address failing septic tanks. The state Department of Transportation is projected to spend $105 million more these next two years to protect habitat and control storm water as it builds more highways. Compared to decades past, sewage treatment is better, logging practices have been reformed, fishing seasons are more conservative. Our understanding of the problem is light years ahead of where it was.

Make no mistake, however. We are in danger, as critics of economists contend, of knowing the price of everything and the value of nothing. We have no good way of putting a "value" on an ecologically thriving Puget Sound. We struggle to justify any kind of ecosystem restoration because our society, unlike Native American society or even pioneer society, does not have much direct economic connection to its health anymore.

We also have the problem that, because Puget Sound is the repository of all our actions, fixing it becomes a comprehensive task. We hoped it might be as easy as building a hatchery or buying a beach, but if there is no stream for the fish, or if the beach is contaminated by pollutants running off the entire basin, then

restoration becomes a matter not just of water, but of land use, transportation and even the composition of our atmosphere.

Does all this make you want to suck your thumb?

SO, WHAT TO DO?

One useful action would be to have more thinking and public discussion about what a healthy, fecund Puget Sound is "for." If we measure only the value of fisheries against, say, the value of a Boeing parking lot with its attendant stormwater runoff, Puget Sound is always going to lose. Half a dozen Boeing planes equals the entire value of the fishing industry.

But if Puget Sound's death is a precursor to the death of the oceans which leads to the extinction of our species, we might be more alarmed. If a continued collapse of Puget Sound species means not just the death of the sports-fishing industry but of resorts, boating and the quality of life that draws software geniuses to Microsoft, then maybe the playing field is leveled.

I think there is also a spiritual and moral dimension to Puget Sound as both a mirror of our own behavior and a window to higher powers. Who remains unmoved by a flight of seabirds or breeching of a whale? Who doesn't take pride in a place of beauty preserved for generations yet unborn? And if you're looking for the purpose of life, isn't one to contribute to the lives of others: not just humans, but plants and animals who can't speak for themselves? I suggest that in saving Puget Sound we save ourselves, and in restoring natural grace we earn inner grace.

What else? One of the most difficult things about Puget Sound is how little we still know. We should be able to answer three questions:

1. What was the biological baseline of Puget Sound â€" how many fish, birds and so on â€" before humans arrived?

2. What is the census of species now?

3. What is a sensible goal for bringing them back?

I don't think we can answer any of those questions very exactly. One thing that would help is more science. The current two-year budget allocates just two percent of its total, or $7 million, for scientific research. I question whether that is adequate. In my experience, the same relative handful of underfunded biologists year after year try to keep track of where we are. We need the software wizards of Puget Sound to put together an accessible database.

Another reform would be to create untouched areas in which the marine ecosystem is allowed to recover toward its natural state so we have some means of comparison with what is disturbed. One tactic, being tried in California and around the world, is the creation of marine reserves that prohibit fishing and other exploitation.

Marine biologists have suggested putting 20 percent of the world's oceans into a reserve system. What would happen if we made reserves out of 20 percent of Puget Sound?

There are huge political obstacles. Tribes often interpret these proposals as a threat to treaty rights, and non-Indian fishermen view them with suspicion. Yet what good is a treaty right or fishing season when you're

guaranteed 50 percent of nothing? Besides reserves and obvious moves such as restricting fishing seasons, reforming hatchery operations and restoring streams, Puget Sound will live or die on decisions about surrounding land use. If the development model for the Puget Sound basin continues to be an auto-centric pattern of sprawling parking lots and housing and agriculture to the edge of every creek, we're probably not going to be successful. The Growth Management Act is a good first step. The Shorelines Act could be updated. The real need is to envision a sustainable future in which we have a high quality of material life and a good environment, too.

This will likely mean more compact cities, improved public transportation and a system of buffers and preserves that creates an ecological web between saltwater and mountain crest.

Coordinating salmon recovery, Sound restoration, land use and transportation planning across all governments is a real thumb sucker, but we're in danger of failing if we can't. We also need to acknowledge that half of our overall marine ecosystem is in a foreign country, and talk to the Canadians once in a while.

What can you do? One simple task is to vote. Can you imagine if every official were elected on a platform to restore Puget Sound?

Right now, there's a paucity of good candidates. Work to find them, elect them or be them.

If you don't want to do that, become a gadfly, or soldier for the Sound. You can muck out a salmon stream or put out a newsletter. Or, you can start holding these dozens of agencies' feet to the fire. In the last two-year Puget Sound Action Team plan, apparently just 20 respondents commented, all of them organizations.

At the very least, educate yourself. Don't take my word for anything. The Internet has made researching the most arcane topics accessible to everyone. What's wrong? You tell me!

And if the immensity of Puget Sound has you sucking your thumb, then tackle Port Townsend Bay, or Admiralty Inlet, or even some side lagoon the rest of us don't even know exists. Adopt a creek and make it yours. Then let your enthusiasm infect the world.

Puget Sound is going to be saved ... because it has to be. If a place as rich and fertile as this collapses, then our civilization and our species are doomed.

Adapted from a speech to the Port Townsend Marine Science Center.

William Dietrich is a Pacific Northwest magazine staff writer. He can be reached at bdietrich@seattletimes.com. Tom Reese is a Seattle Times staff photographer.